

1 CLAIMS

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3 1. A method comprising:

4 receiving a document to be rendered, the document including a first

5 element that has standard content and is focusable and a second element that has

6 both standard and alternate content and is not focusable;

7 generating a list of focusable elements associated with the document, such

8 that the list includes the first element, but does not include the second element;

9 rendering the document such that the standard content associated with the

10 first element is rendered and the standard content associated with the second

11 element is rendered;

12 receiving an indication of a viewer's intent to activate an accessibility

13 mode; and

14 altering the list of focusable elements to include the second element.

15

16 2. The method as recited in claim 1 wherein the document comprises a

17 hypertext markup language document.

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19 3. The method as recited in claim 1 wherein the second element

20 comprises a text element.

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22 4. The method as recited in claim 1 wherein the second element

23 comprises an image element.

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1 5. The method as recited in claim 1 wherein the second element
2 comprises an audio element.

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4 6. The method as recited in claim 1 wherein the second element
5 comprises a multimedia element.

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7 7. The method as recited in claim 1 wherein the alternate content
8 comprises text.

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10 8. The method as recited in claim 1 wherein the alternate content
11 comprises image data.

12
13 9. The method as recited in claim 1 wherein the alternate content
14 comprises audio data.

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16 10. The method as recited in claim 1 wherein the alternate content
17 comprises multimedia data.

18
19 11. The method as recited in claim 1 wherein the alternate content
20 comprises a second document that can be rendered.

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22 12. The method as recited in claim 1, further comprising rendering the
23 alternate content associated with the second element.

1 13. The method as recited in claim 12 wherein the rendering the
2 alternate content is performed in response to receiving an indication that the
3 second element has been selected.

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5 14. The method as recited in claim 13 wherein the indication that the
6 second element has been selected comprises an indication that the element has
7 focus.

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9 15. The method as recited in claim 12 wherein the rendering the
10 alternate content comprises replacing the standard content that was rendered with
11 a rendering of the alternate content.

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13 16. The method as recited in claim 12 wherein the rendering the
14 alternate content comprises rendering the alternate content in a new browser
15 interface window.

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17 17. The method as recited in claim 1 further comprising rendering a
18 visual demarcation to indicate an accessibility mode state.

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20 18. The method as recited in claim 17 wherein the visual demarcation is
21 an icon.

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23 19. The method as recited in claim 1 further comprising rendering an
24 audio demarcation to indicate an accessibility mode state.

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1 20. A browser application configured to perform the method as recited
2 in claim 1.

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4 21. A rendering engine configured to perform the method as recited in
5 claim 1.

6
7 22. An interactive television viewing system configured to perform the
8 method as recited in claim 1.

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10 23. One or more computer-readable media comprising computer
11 executable instructions that, when executed, direct a computing system to perform
12 the method as recited in claim 1.

13
14 24. A method comprising:
15 receiving a document having one or more elements, individual elements
16 having standard content and having associated alternate content that can be
17 rendered in an accessibility mode of operation;

18 in an event that the accessibility mode is not active, rendering the standard
19 content associated with each of the elements; and

20 in an event that the accessibility mode is active, rendering the alternate
21 content associated with at least one of the elements.

1 25. A method comprising:
2 generating a list of focusable elements associated with a document to be
3 rendered such that individual focusable elements can be selected for activation by
4 a user;
5 identifying, in the document, an element with associated alternate content;
6 and
7 in an event that the element is not included in the list of focusable elements,
8 adding the element to the list of focusable elements.

9
10 26. The method as recited in claim 25 wherein the identifying and
11 adding are performed in response to receiving an indication that an accessibility
12 mode is active.

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14 27. The method as recited in claim 25 wherein the element comprises a
15 text element.

16
17 28. The method as recited in claim 27 wherein the alternate content
18 comprises audio that is associated with the text element.

19
20 29. The method as recited in claim 27 wherein the alternate content
21 comprises multimedia data that is associated with the text element.

22
23 30. The method as recited in claim 27 wherein the alternate content
24 comprises text and an easy to read font.

1 31. The method as recited in claim 25 wherein the element comprises an
2 image element.

3
4 32. The method as recited in claim 31 wherein the alternate content
5 comprises a textual description of the image element.

6
7 33. The method as recited in claim 31 wherein the alternate content
8 comprises an audio description of the image element.

9
10 34. The method as recited in claim 31 wherein the alternate content
11 comprises a multimedia description of the image element.

12
13 35. The method as recited in claim 25 wherein the alternate content
14 comprises text.

15
16 36. The method as recited in claim 25 wherein the document is a web
17 page that may be rendered using a browser application.

18
19 37. The method as recited in claim 25 wherein the document comprises
20 a hypertext markup language document.

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22 38. The method as recited in claim 25 wherein the document comprises
23 a dynamic hypertext markup language document.

1 39. A browser application configured to perform the method as recited
2 in claim 25.

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4 40. A rendering engine configured to perform the method as recited in
5 claim 25.

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7 41. One or more computer-readable media comprising computer
8 executable instructions that, when executed, direct a computing system to perform
9 the method as recited in claim 25.

10
11 42. A method comprising:
12 identifying an element that is included in a list of focusable elements
13 associated with a document that can be rendered, wherein the element, by default,
14 is not a focusable element; and
15 removing the element from the list of focusable elements.

16
17 43. The method as recited in claim 42 wherein the identifying and
18 removing are performed in response to receiving an indication that an accessibility
19 mode is inactive.

1 44. An interactive television viewing system comprising:
2 a display device; and
3 a client device configured to render an interactive document and provide
4 access to alternate content associated with one or more elements of the document
5 by altering a default list of focusable elements.

6
7 45. The interactive television viewing system as recited in claim 44
8 wherein the display device comprises a television.

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10 46. The interactive television viewing system as recited in claim 44
11 wherein the display device comprises a computer monitor.

12
13 47. The interactive television viewing system as recited in claim 44
14 wherein the client device comprises a television set-top box.

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16 48. The interactive television viewing system as recited in claim 44
17 further comprising:
18 an input device configured to notify the client device of a viewer intent to
19 activate an accessibility mode.

20
21 49. The interactive television viewing system as recited in claim 48
22 wherein the input device is further configured to:
23 notify the client device of a viewer intent to deactivate an accessibility
24 mode.
25

1 50. The interactive television viewing system as recited in claim 48
2 wherein the input device is further configured to:

3 notify the client device of a viewer intent to remove rendered alternate
4 content from a display.

5
6 51. The interactive television viewing system as recited in claim 48
7 wherein the input device comprises a television remote control.

8
9 52. A television remote control device comprising:
10 a power button configured to turn one or more components of an interactive
11 television viewing system set on and off;
12 channel navigation buttons configured to direct to the television viewing
13 system to tune to a different channel; and
14 an accessibility button configured to direct the television viewing system to
15 toggle in and out of an accessibility mode that provides access to alternate content
16 associated with elements of a document that may be rendered.

17
18 53. A system comprising:
19 a rendering engine configured to visually render documents with associated
20 focusable elements and to render standard or alternate content associated with one
21 or more of the focusable elements according to an accessibility mode; and
22 a display interface for communicating documents and alternate content that
23 are rendered to a display device.
24
25

1 54. The system as recited in claim 53, wherein the rendering engine
2 comprises:

3 a focusable element identifier for determining which of a plurality of
4 elements associated with a document are focusable; and

5 a content selector for determining which of a plurality of content associated
6 with an element is to be rendered.

7
8 55. A system comprising:

9 means for rendering documents, the documents each comprising a plurality
10 of elements that may have associated standard content and associated alternate
11 content;

12 means for modifying a list of focusable elements associated with a
13 document to be rendered; and

14 means for selecting a content to render in association with an element, the
15 content selected from standard and alternate content associated with the element.

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17 56. The system as recited in claim 55 further comprising:

18 means for indicating the state of an accessibility mode.
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1 57. One or more computer-readable media comprising computer
2 executable instructions that, when executed, direct a computing system to:

3 determine a list of focusable elements associated with a document to be
4 rendered;

5 determine that the document is to be rendered in an accessibility mode;

6 alter the list of focusable elements to include elements that have associated
7 alternate content;

8 visually render the document such that standard content associated with
9 each element is rendered and each element on the list of focusable elements can be
10 selected;

11 receive an indication that an element has been selected; and

12 in an event that the element has associated alternate content, render the
13 alternate content.

14
15 58. The one or more computer-readable media as recited in claim 57
16 further comprising computer executable instructions that, when executed, direct a
17 computing system to:

18 visually indicate which element associated with the document currently has
19 focus; and

20 visually indicate whether or not the element that currently has focus has
21 associated alternate content that may be rendered.

1 59. The one or more computer-readable media as recited in claim 58
2 further comprising computer executable instructions that, when executed, direct a
3 computing system to visually indicate which element associated with the
4 document currently has focus by displaying a focus indicator encircling the
5 element.

6
7 60. The one or more computer-readable media as recited in claim 58
8 further comprising computer executable instructions that, when executed, direct a
9 computing system to visually indicate whether or not the element that currently
10 has focus has associated alternate content that may be rendered by:

11 displaying a focus indicator of a first color encircling the element if the
12 element does not have associated alternate content that may be rendered; and

13 displaying a focus indicator of a second color encircling the element if the
14 element does have associated alternate content that may be rendered.

15
16 61. The one or more computer-readable media as recited in claim 58
17 further comprising computer executable instructions that, when executed, direct a
18 computing system to visually indicate whether or not the element that currently
19 has focus has associated alternate content that may be rendered by:

20 displaying a focus indicator of a first style encircling the element if the
21 element does not have associated alternate content that may be rendered; and

22 displaying a focus indicator of a second style encircling the element if the
23 element does have associated alternate content that may be rendered.

1 62. The one or more computer-readable media as recited in claim 57
2 further comprising computer executable instructions that, when executed, direct a
3 computing system to:

4 receive an indication that the element has been selected a second time; and
5 in an event that the element has a second associated alternate content,
6 render the second alternate content.

7
8 63. The one or more computer-readable media as recited in claim 57
9 further comprising computer executable instructions that, when executed, direct a
10 computing system to:

11 receive an indication that the element has been de-selected; and
12 render a standard content associated with the element.

13
14 64. One or more computer-readable media comprising computer
15 executable instructions that, when executed, direct a computing system to:

16 determine a list of focusable elements associated with a document to be
17 rendered; and
18 alter the list of focusable elements based on a state of an accessibility mode.

19
20 65. The one or more computer-readable media as recited in claim 64
21 further comprising computer executable instructions that, when executed, direct
22 the computing system to:

23 alter the list of focusable elements by adding an element to the list of
24 focusable elements if the element has associated alternate content.

1 66. The one or more computer-readable media as recited in claim 64
2 further comprising computer executable instructions that, when executed, direct
3 the computing system to:

4 alter the list of focusable elements by removing an element from the list of
5 focusable elements if the element has associated alternate content and is not
6 focusable by default.